



Re-inventing the ATM
in an Increasingly
Cashless Economy

For close to a decade, the rise of digital has shrunk the footprint of ATMs, reduced their usage as a primary choice of banking, and many have predicted their eventual demise. While these predictions may not materialize completely, what is increasingly becoming evident is the need for the ATM channel to reinvent itself. In this white paper from our Banking Consulting practice we present some ideas — some currently feasible and the other futuristic — for adapting ATMs to a world in which digital rules.

The pandemic: a tectonic shift for ATMs

The potential risk of contracting COVID-19 through ATMs and most retail businesses not accepting cash pushed consumers towards adopting digital payment options. ATM usage fell by 47 percent in April 2020 in India, the UK saw a 46 percent fall per month on average from March to July 2020, while in Australia, the top four banks removed 2,150 ATM terminals and closed 175 bank branches since June . In China — the world's second-largest economy¹ — ATMs nationwide had reduced to only 7.24 per 10,000 people at the end of 2020². Thus, the pandemic has rapidly accelerated the trend of ATMs becoming irrelevant.

At the same time, the pandemic has also fast-tracked digital adoption and heightened interest across the globe for real-time payments and hyper-personalization of

channels. Cryptocurrencies are gaining acceptance, and most central banks have plans to launch digital currencies of their own. This raises questions around the future of paper currency and its impact on the ATM industry.

Another strategic shift is happening. The traditional bank branch is dead, as banks instead push an array of self-serve options to meet almost all their customers' banking needs. Many of these services are now digital and provided through smartphones, whereas transactional services which require physical presence have moved to ATMs or self-service kiosks. Further, cross-channel synergies are emerging in the market, with ATM and mobile phones being used together for cardless withdrawals or money remittance endpoints.

1. McKinsey Global Payments Report 2020.

<https://www.mckinsey.com/-/media/mckinsey/industries/financial%20services/our%20insights/accelerating%20winds%20of%20change%20in%20global%20payments/2020-mckinsey-global-payments-report-vf.pdf>. Accessed 29 Sept. 2021.

2. 'China ATM Numbers Shrink as More Opt for Cashless Payments'. Hindustan Times, 2 Apr. 2021,

<https://www.hindustantimes.com/world-news/china-atm-numbers-shrink-as-more-opt-for-cashless-payments-101617365823554.html>.



The heavy burden of legacy

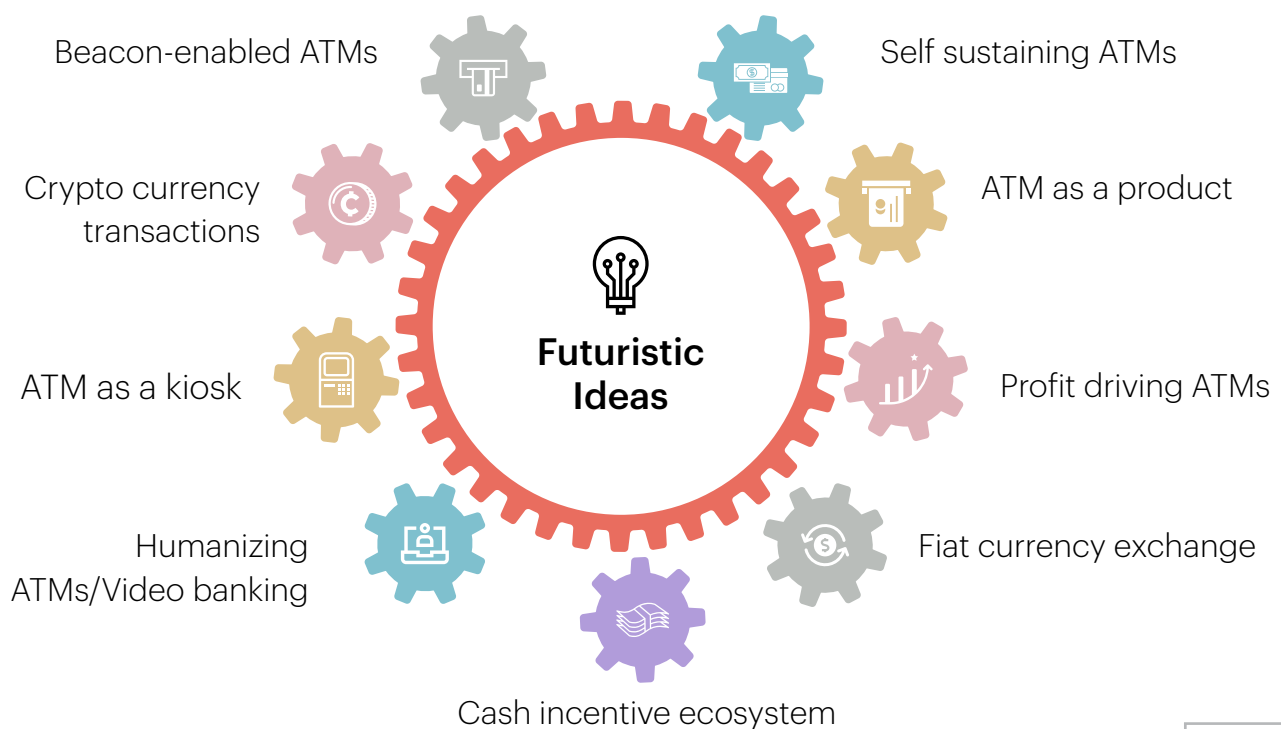
Despite these shifts, there is still a high disparity between the legacy ATM systems operated by different banks and the new digital paradigm. Legacy ATM infrastructure has a high cost of maintenance, which includes for example, the costs for tandem machines and other products such as switches, ATM monitoring, licenses, and ATM software customizations. There is also a long time to market for any new ATM solution deployed on legacy platforms due to the lack

of APIs, cloud readiness, GUIs for business configuration, difficulty in implementing security mandates like 3DES, and resource unavailability.

Further, the modernization of ATM systems is also dependent on the peripheral banking core systems, which are still on legacy platforms. Hence, merely adopting a next-gen cloud-based ATM system will not be adequate to provide the whole range of digital services.

Augmenting teller machines for the future

Considering all these factors, how can banks remain relevant in the ATM business? Here are a few futuristic and even some immediately applicable ideas for augmenting an ATM's capabilities and sustaining its relevance even in changing times:



Self-sustaining ATMs

A significant concern with ATMs is ensuring their cash availability. Modernizing ATMs to accept cash deposits from customers will make them self-sufficient for other customers' withdrawal needs. The core concept is to incentivize customers and small businesses in the local community to directly deposit cash at a specific set of ATMs in the vicinity using intelligent algorithms. A portal to monitor cash positions at each of these ATMs will enable banks to respond with a cash refill in case of an exceptional situation. Once in play, this ecosystem will cyclically replenish depleted cash in ATMs and reduce bank overhead for managing cash refills.

ATM as a product, shared utility, or service

Payment services have a high cost of ownership for banks but are also the most frequent digital touchpoints for consumers. So rather than considering the ATM as another customer payment channel, banks can offer it as a separate product. They can also collaborate with other independent white label ATM providers to operate it as a shared utility or consume ATM-as-a-Service from similar providers in the form of multi-bank branded ATMs. These arrangements will improve a bank's margins, lower its capital expenditures, and help attain scale.

Driving ATM profitability

ATM profitability depends on its location, cost of operation, usage, seasonality, and services provided. After the required due diligence, ATM services can be customized utilizing analytics on data that is related to its location significance. Examples of such data can include ticket sales near events, quasi-cash tokens in casinos, money transfers, or cross-border withdrawals in tourist hotspots.

Further, ATM profitability simulations can be done by considering fixed and variable costs as well as various revenue streams such as transactions, value-added services, or advertising. Depending on the price elasticity of demand based on different location and time traits, optimal surcharge rates can also be added to various ATM transactions. For example, an ATM in a stadium or a theme park will command a greater level of surcharge than an ATM at a location with several other ATMs from competitors.

Fiat currency exchange

Enabling ATMs to exchange foreign currency for local currency at an optimal fee will be a helpful feature at commercial and tourist hotspots and at international airports. The ability to accept and dispense multiple currencies with dynamic currency conversion (DCC) will make these ATMs

self-service currency exchanges. Such ATMs must also be enabled with video teller support features and provide information on exchange rates, fees, limits for transactions, and proof of ID required to support transactions, if any.

A cash incentive ecosystem

Merchants can symbiotically collaborate with banks in several ways to incentivize cash withdrawals for consumer purchases. Co-branded ATMs can be strategically placed for the use of consumers at various merchant locations. Merchant offers can be printed on the cash withdrawal receipts, which can be redeemed at checkout.

Merchant loyalty points can also be redeemed as cash from the ATM, giving additional options to consumers while increasing customer stickiness for the merchant. These kiosks can also be used for merchant lending or overdraft needs based on the creditworthiness of the store. Additionally, enabling these ATMs to disburse cash through an instant loan account can address numerous working capital issues for the merchant.

Humanizing ATMs with video banking services

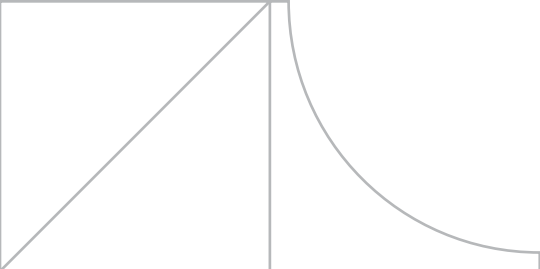
ATM screens can be personalized based on the customer's historical transactions to provide the ability to easily make payments to a multitude of entities. These payments,

made via the ATM, can include utilities, credit card bills, or even taxes. Also, targeted campaigns can be pushed to the ATM screen based on customer insights derived from different data sources. For instance, if a customer accessing the ATM has an interest in soccer, then advertisements for World Cup tickets can be flashed onto the screen. Other applications of humanized ATMs might be providing customer satisfaction through an augmented reality-based navigation service to the nearest branch or ATM in case of non-availability of cash.

ATM as an intelligent kiosk

Upgraded ATMs can replace most of a bank branch's activities. Through such kiosks, non-bank customers can open banking relationships, fill-in know-your-customer (KYC) forms without leaving the terminal, and even get cards or lending accounts issued digitally. Also, apart from customary teller transactions, smart ATMs can be enabled for instant payments to bank accounts, proxies, wallets, QR codes, and cards, or for requesting funds from friends and relatives through pull payments.

Smartening up ATMs will also involve enabling them as a contact center service for activities such as logging a loss report, blocking a card, or immediately printing and dispatching a new card per the customer's discretion. Banks can increase



the adoption of these smart kiosks through seamlessly integrating and personalizing customer experience across all their payment channels, including ATMs.

Enabling cryptocurrency transactions

Cryptographic ATMs can be introduced, allowing users to purchase cryptocurrencies with cash. Enhanced versions of such cryptographic ATMs can enable the buying and selling of these digital currencies directly from a customer's wallet. Once sovereign digital currencies are approved by the central banks, these ATMs can also be one of the key transaction points to issue these digital currencies in exchange for cash and vice versa.

Beacon-enabled ATMs

Beacons for proximity marketing can enable customers to locate the nearest ATM or branch. These ATMs can broadcast relevant financial offers from the bank to customer smartphones when they are in the vicinity. They can also be monetized through collaboration with businesses in nearby locations to broadcast advertisements and offers.

For the ATM business to be sustainable, it needs to increase its utility value beyond banking services. This will require not only hardware upgrades, but more importantly, software innovation and integration.

Because the ATM is an essential channel for a bank to retain its central position in customer journeys and payments, banks will also need to take a deep strategic view on innovative solutions and the best operating model to prioritize more significant investments in the business.

In a nutshell, it is imperative for banks, and more importantly, ATM manufacturers, to urgently reinvent the ATM for greater functionality and market opportunity. Doing this will prevent it from becoming merely a fallback channel for remote areas and being eventually discarded.

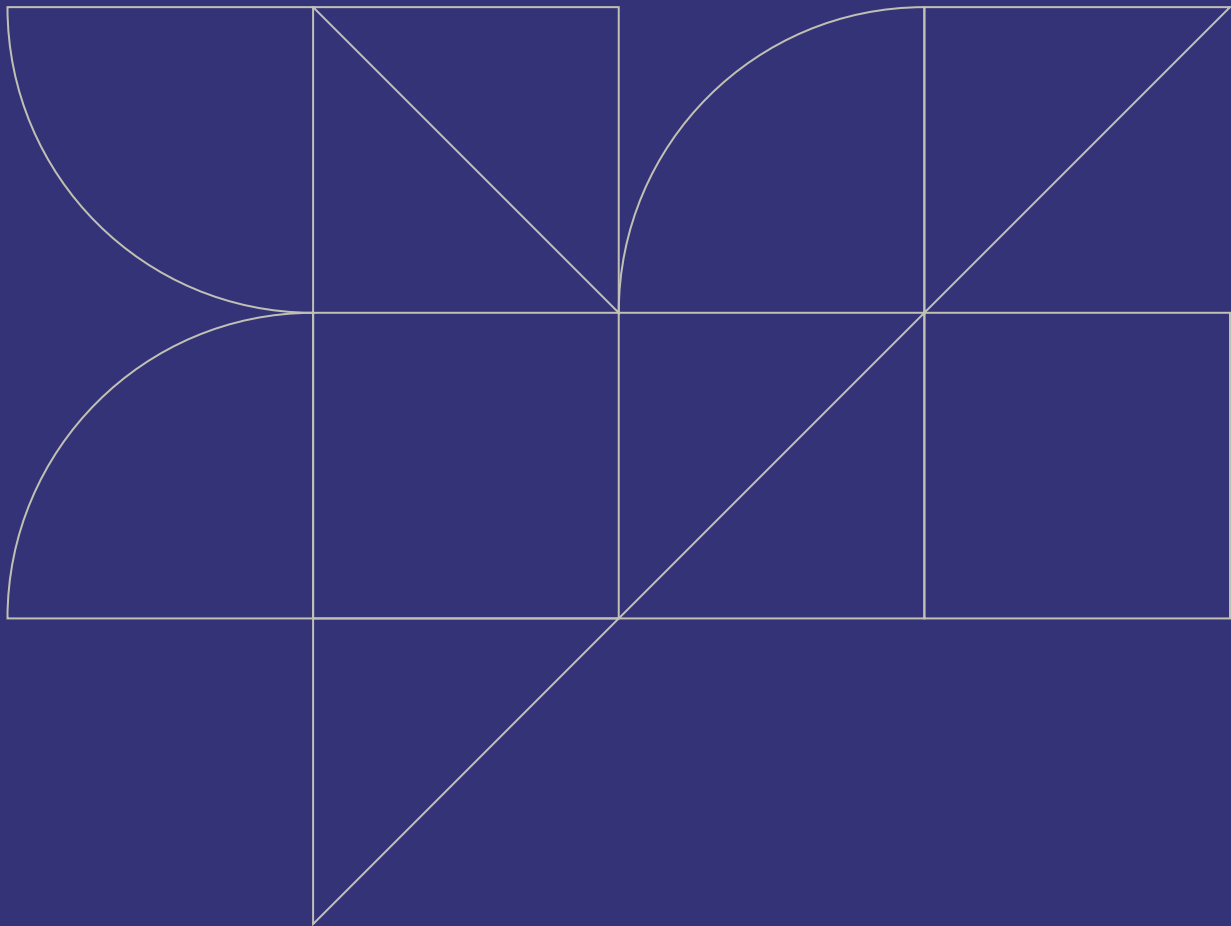
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